

that the speed increases as the balls move inward. Here the sensitiveness is 1.24% as compared with 15% in the previous case, thus, while the sensitiveness is very much improved in the case where $S = 24$ pounds, yet on account of the instability the arrangement is an impossible one.

In the shaft governor, however, the weights cannot be arranged as above, but must be mounted so that they may act directly on the eccentric and, consequently, the forces which they can exert must in some way be controlled. A very common arrangement is shown at Fig. 41, in which two weights are used attached to the rotating

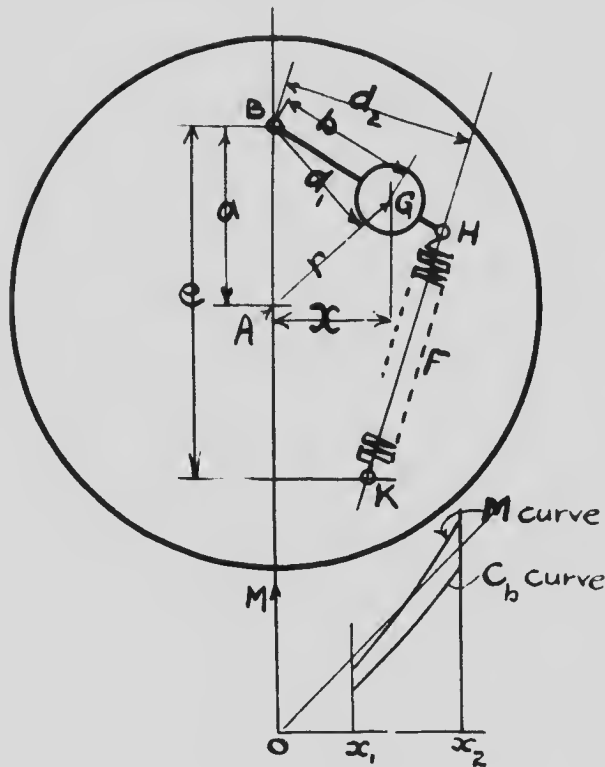


Fig. 42.

disk, or wheel by pins B , the centrifugal force of the balls a being balanced by the springs F and links shown connecting the ball arms to the eccentric. (Note— This form of governor is not much used now, but for the purpose of instruction it is chosen as an illustration, the modern form following later on).

Let Fig. 42 represent one half of a typical shaft governor, the other half being similar and the two parts being so connected that gravity effect is neutralized. A is the centre of rotation, B the